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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/532,678

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Masahiro Ishikawa

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EXAMINER

TSAY, MARSHA M

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/532,678	Applicant(s) ISHIKAWA ET AL.	
	Examiner Marsha M. Tsay	Art Unit 1656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>04/26/05; 06/01/05; 12/13/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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Claims 1-8 are pending and currently under examination.

Priority: The instant application claims foreign priority to JP 2002-328243, filed November 12, 2002.

Specification

The disclosure is objected to because of the following informalities: on page 1, the priority data needs to be updated with a reference to related applications.

Appropriate correction is required.

Claim Objections

Claim 1 is objected to because of the following informalities: in claim 1, line 1, the term “is” should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 3-6, recite fractionating the soybean protein solution into a soluble fraction and an insoluble fraction at an ionic strength of 0.02 or more and pH of 4.5 or higher but lower

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than 5.6. It is unclear if the ionic strength of 0.02 or the pH conditions are referring to the insoluble fraction or to the conditions of the fractionating process. Further clarification is requested.

Claim 3 is indefinite because it recites a broader pH range (pH 3.8 to 6.8) than claim 1 (pH 4.5 to 5.6), therefore its dependency is improper.

Claim 4 recites the heating is performed at 30 to 75°C. It is unclear if the heating is performed at a specific temperature in the range of from 30 to 75°C or if the actual heating process is performed at a starting temperature of 30°C and ending at a temperature of 70°C. Further clarification is requested.

Claims 2-3, 5-8 are included in this rejection because they are dependent on claim 1 and fail to cure its defect.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6, 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Saitoh et al. (US 6638562). Claim 1 has been given its broadest and most reasonable interpretation, i.e. a process for producing soybean protein comprising heating a soybean protein solution under acidic conditions, and then fractionating it into a soluble fraction and an insoluble fraction. In

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Example 2, Saitoh et al. teach a process for producing soybean protein comprising heating a solution of defatted-soybean milk at pH 5.9 to 40°C (col. 9 lines 10-14; claims 1-4). Saitoh et al. further teach phytase was added to the soybean protein solution and fractionated to obtain an insoluble fraction and a soluble fraction (col. 9 lines 16-20; claim 1). Saitoh et al. teach a 7S and an 11S globulin protein with a phytic content of 0.05% weight of protein (col. 9 line 18, lines 30-35; claims 6, 8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saitoh et al. (US 6638562) in view of current knowledge of the art. The teachings of Saitoh et al. are outlined above. Saitoh et al. teach a ratio of 7S globulin/(11S globulin + 7S globulin) is 0.9 in the soluble fraction (col. 9 lines 30-40). Claims 5-7 recite a content of a polar lipid extracted by a mixed solvent of chloroform and methanol is 1% by weight or 2% by weight or less, respectively, which can include 0%; therefore, the instant process does not necessarily have to comprise the extraction step by a mixed chloroform and methanol solvent. Saitoh et al. do not teach a further fractionation step of the soluble fraction.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further fractionate 7S globulin protein from the soluble fraction obtained by the

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fractionation process of Saitoh et al. (claim 5). The motivation to do so is provided by Saitoh et al. which discloses that the soluble fraction has a contamination rate of 2.9% of 11S globulin (col. 9 line 39); therefore, one of ordinary skill has a reasonable expectation of success in further fractionating the 7S globulin protein of Saitoh et al. because a further separation step will yield a purer 7S globulin protein product.

Saitoh et al. teach a ratio of 11S globulin/(11S globulin + 7S globulin) of 11S globulin protein is 0.9 in the insoluble fraction (col. 9 lines 30-40). Saitoh et al. do not teach a further fractionation step of the insoluble fraction.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further fractionate 11S globulin protein from the insoluble fraction obtained by the fractionation process of Saitoh et al. (claim 7). The motivation to do so is provided by Saitoh et al. which discloses that the insoluble fraction has a contamination of 7.0% of 7S globulin (col. 9 line 39); therefore, one of ordinary skill has a reasonable expectation of success in further fractionating the 11S globulin protein of Saitoh et al. because a further separation step will yield a purer 11S globulin protein product.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marsha M. Tsay whose telephone number is (571)272-2938. The examiner can normally be reached on M-F, 9:00am-5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Kathleen Kerr Bragdon can be reached on 571-272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Maryam Monshipouri/
Primary Examiner, Art Unit 1656

March 25, 2008